

In the Specification:

Please amend the following numbered paragraphs of the Specification.

a1 [0008] In commonly owned co-pending U.S. Patent Application Nos. 09/372,172, now U.S. Patent No. 6,251,062, and 09/468,860, now U.S. Patent No. 6,394,947, which are hereby incorporated by reference implantable systems for treatment of tinnitus by masking and/or noiser functions are described, in which the signal-processing electronic path of a partially or totally implantable hearing system is supplemented by corresponding electronic modules such that the signals necessary for tinnitus masking or noiser functions can be fed into the signal processing path of the hearing aid function and the pertinent signal parameters can be individually adapted to the pathological requirements by further electronic measures. This adaptability can be accomplished by the necessary setting data of the signal generation and feed electronics being stored or programmed by hardware and software in the same physical and logic data storage area of the implant system, and the feed of the masker or noiser signal into the audio path of the hearing implant can be controlled via the corresponding electronic actuators.

a2 [0010] For all of the above rehabilitation devices it today appears to be very sensible to design the systems such that they can be implanted completely. Depending on the desired function, such hearing systems are comprised of three or four functional units: a sensor (microphone) which converts the incident airborne sound into an electrical signal, an electronic signal processing, amplification and implant control unit, an electromechanical or implantable electroacoustic transducer which converts the amplified and preprocessed sensor signals into mechanical or acoustic vibrations and sends them via suitable coupling mechanisms to the damaged middle and/or inner ear, or in the case of cochlear implants a cochlear stimulation electrode, and an electric power supply system which supplies the aforementioned modules. Furthermore, there can be an external unit which makes available electrical recharging energy to the implant when the implant-side power supply unit contains a rechargeable (secondary) battery. Especially advantageous devices and processes for charging of rechargeable implant batteries are described in commonly owned co-pending U.S. Patent Application No. 09/311,566, now U.S. Patent No. 6,227,204, and in commonly owned U.S. Patent No. 5,279,292 which are hereby incorporated by reference. Preferably

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there can also be a telemetry unit with which patient-specific, audiological data can be wirelessly transmitted bidirectionally or programmed in the implant and thus permanently stored, as was described by Leysieffer et al.: "A totally implantable hearing device for the treatment of sensorineural hearing loss: TICA, LZ 3001", in HNO Vol. 46, 1998, pp. 853-863.

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[0015] In commonly owned co-pending U.S. Patent Application No. 09/359,050, now U.S. Patent No. 6,269,266, which is hereby incorporated by reference there is described an implantable hearing system, wherein a rechargeable, electrochemical energy storage which is provided with a housing is arranged within an hermetically tight housing which is equipped with a mechanical monitoring arrangement responsive to impermissible escape of gas from the energy storage and which then, if necessary, interrupts the charging process to prevent damage to the energy storage or the housing. The hermetically tight housing is arranged within a further hermetically tight housing which in accordance with a first embodiment additionally comprises an electronic unit for controlling the charging and discharging process, means for supplying a charging current and an additional electronic unit for monitoring mechanical housing monitoring arrangement. In accordance with a second embodiment these components are arranged within a separate housing, which further contains the control electronics of the hearing systems. The hermetically tight housing which contains the hermetically tight housing of the energy storage is connected to the main housing which contains the control electronics by means of a releasable, rigid mechanical connection.

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[0018] In commonly owned co-pending U.S. Patent Application No. 09/627,449 now U.S. Patent No. 6,392,386 which is hereby incorporated by reference there is described an implantable hearing system with a rechargeable, electrochemical energy storage wherein the electrodes of the energy storage are arranged directly, i.e. without additional housing in an hermetically tight housing that is monitored by means of a mechanical unit responsive to impermissible gas evolution within the housing and which then mechanically interrupts the charging process. Furthermore, a temperature sensor is provided within the housing to monitor the operational state of the energy storage and, if applicable, to electronically interrupt the charging process by means of a monitoring electronics. The monitoring electronics can also be caused by the mechanical monitoring unit to interrupt the charging process. Apart from the energy storage and the temperature sensor, the monitored,

A4 hermetically tight housing of the energy storage does not contain any further components.

A5 [0020] In commonly owned co-pending U.S. Patent Application No. 09/824,242 now U.S. Patent No. 6,525,512 which is hereby incorporated by reference there is described an implantable energy storage arrangement for a medical implant comprising a monitoring unit that is independent of a unit for controlling the charging process and that detects the voltage of the energy storage independent of the control unit and is designed such that it assumes control over the charging path when a sensed storage voltage lies outside of a predetermined range.

[0021] In commonly owned co-pending U.S. Patent Application No. 09/824,212 now U.S. Patent No. 6,570,363 which is hereby incorporated by reference there is described an implantable energy storage arrangement for a medical implant comprising means that is externally activatable to bypass an actuator within the charging path.

[0022] In commonly owned co-pending U. S. Patent Application No. 09/369,184 now U.S. Patent No. 09,369,184 which is hereby incorporated by reference there is described a fully implantable hearing system for rehabilitation of a pure sensorineural hearing loss or combined conduction and inner ear hearing impairment, which system comprises at least one implantable sensor which generates an electrical audio signal, at least one signal processing and amplification unit in an audio-signal processing electronic hearing system path, at least one implantable electromechanical transducer and a unit for supplying power for the implant system, which power supply unit may comprise a secondary, rechargeable element. The hearing system is furthermore ~provided with an implant-side measurement unit which acquires the electrical sensor signal(s) electronically by measurement engineering and electronically conditions the signal(s). Also, a wireless telemetry unit is provided on the implant side which transfers the electronically conditioned sensor signal(s) to the outside to an external display and/or evaluation unit, In a preferred embodiment the signal processing and amplification unit, the implant-side measurement unit for generating and feeding the signals necessary for the audiometry function and the telemetry unit are housed together with the power supply unit in a hermetically tight and biocompatible implant housing to form an electronic module.
